POWER AMPLIFIER

KAC-6403

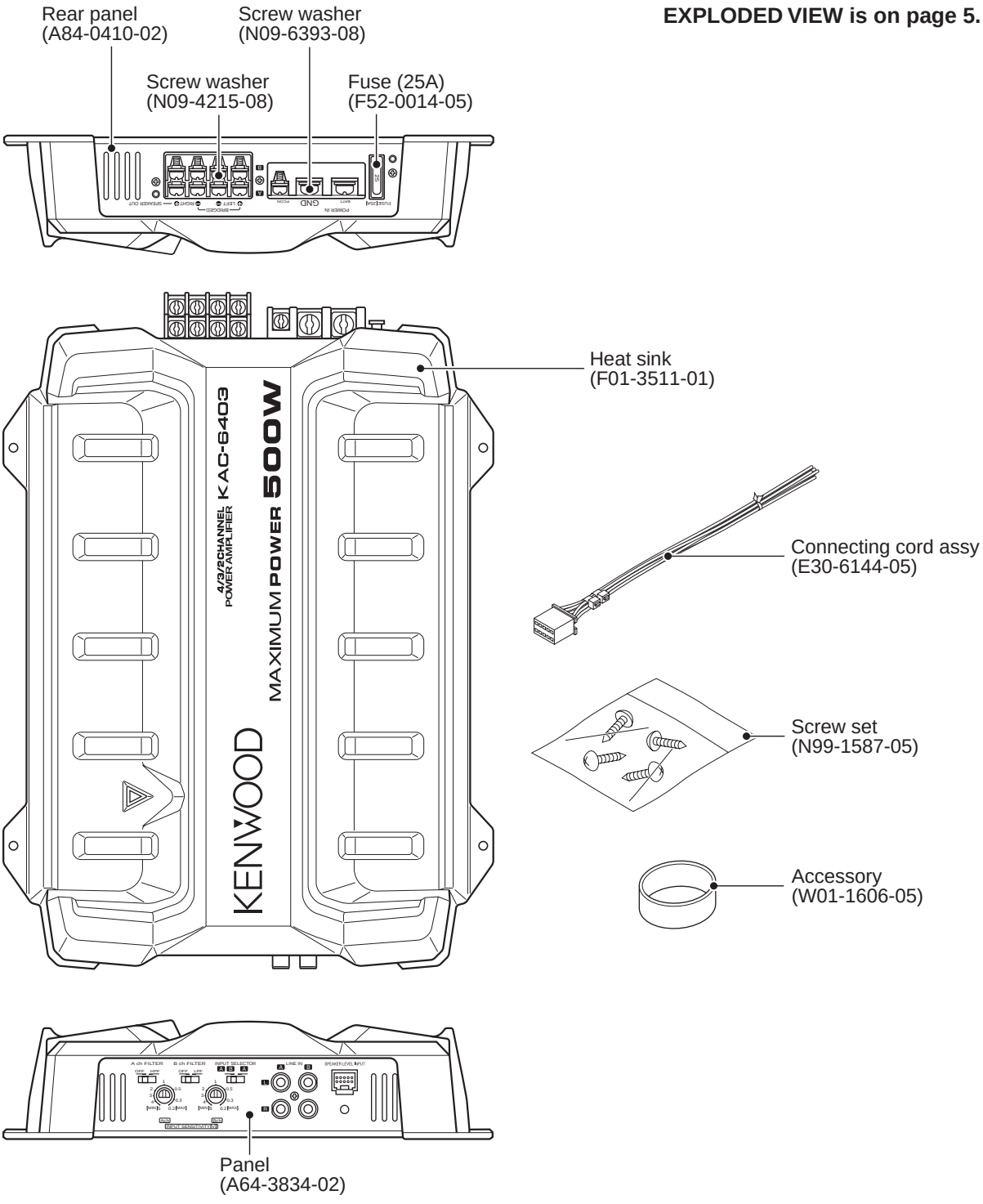
SERVICE MANUAL

KENWOOD

Kenwood Corporation

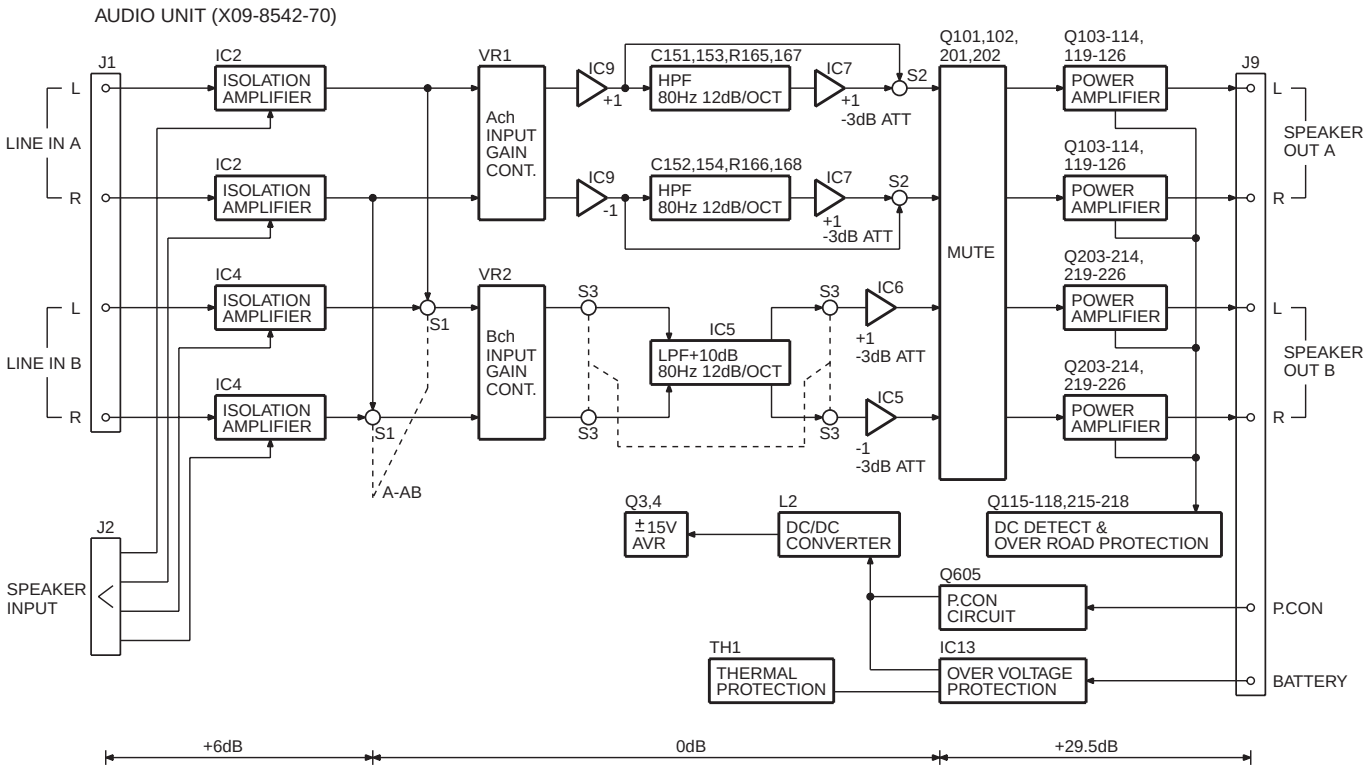
© 2006-1 PRINTED IN JAPAN
B53-0378-00 (N) 540

EXPLODED VIEW is on page 5.



This product uses Lead Free solder.

BLOCK DIAGRAM



COMPONENTS DESCRIPTION

● AUDIO UNIT (X09-8542-70)

Ref. No	Application / Function	Operation / Condition / Compatibility
IC1	Buffer AMP	Amplifies 6dB by decreasing impedance.
IC2	Isolation AMP	Decreases common mode noise.
IC3	Buffer AMP	Amplifies 6dB by decreasing impedance.
IC4	Isolation AMP	Decreases common mode noise.
IC5	LPF	B-Rch side is phase inverter.
IC6	-3dB ATT	B-Lch side is buffer amplifier.
IC7	Buffer AMP	Decreases impedance.
IC9	Phase inverter	A-Lch side is buffer amplifier.
IC13	DC/DC converter	Oscillates and controls DC/DC converter.
Q3,4	Constant voltage power supply	Controls ±15V constant voltage.
Q5,6	DC/DC converter	Switching FET.
Q7~10	DC/DC converter	Drives Q5's and Q6's gates.

COMPONENTS DESCRIPTION

Ref. No	Application / Function	Operation / Condition / Compatibility
Q11,12	DC/DC converter	Turns on or off IC13 output.
Q101,102	Input mute	Absorbs shook noise when power turns on or off.
Q103~106	Power AMP	1st deferential amplifier.
Q107~110	Power AMP	2nd deferential amplifier.
Q111,112	Power AMP	Current mirror load for 2nd deferential amplifier.
Q113,114	Power AMP	Compensates bias temperature in power amplifier.
Q115~118	Power AMP	Detects over-current.
Q119~122	Power AMP	Darlington driver.
Q123~126	Power AMP	Darlington output.
Q131,132	ATT signal control	Controls signal in attenuator.
Q201,202	Input mute	Absorbs shook noise when power turns on or off.
Q203~206	Power AMP	1st deferential amplifier.
Q207~210	Power AMP	2nd deferential amplifier.
Q211,212	Power AMP	Current mirror load for 2nd deferential amplifier.
Q213,214	Power AMP	Compensates bias temperature in power amplifier.
Q215~218	Power AMP	Detects over-current.
Q219~222	Power AMP	Darlington driver.
Q223~226	Power AMP	Darlington output.
Q231,232	ATT signal control	Controls signal in attenuator.
Q601	B-class stage mute	Generates mute signal. ON: Normal
Q602	Mute	Generates mute signal. OFF: Normal
Q603	Input mute	Generates mute signal. OFF: Normal
Q604	Power ON/OFF	Controls primary power supply. ON: Normal
Q605	Power ON/OFF	Controls power.
Q606	Power ON/OFF	Protects from over-voltage. Stops when primary power supply input voltage is below 16V.
Q610	Over-current DET	Operates when Q610 detects over-current, and DC/DC converter turns off.
Q611,612	DC output voltage DET	Operates when DC output voltage is in power amplifier.
Q613,614	DC output voltage DET	Latch circuit for DC to be detected.
Q615,616	B-class stage mute	Operates to turn off input of power amplifier.
Q617,618	B-class stage mute	Drives Q615 and Q616. ON: Normal
D1	Wrong connection protection	Cuts fuse off when connector is connected wrongly.
D2,3	AVR reference voltage	Controls Q3 and Q4 with zener voltage.
D4,5	Secondary power supply rectifier	
D6~10	Switching	Prevents reverse flow.
D32~37	Static electricity protection	Prevents OP-AMP to be broken by static electricity.
D101,102	Temperature compensator	Stabilizes current between base and emitter of 2nd deferential transistors.
D103,104	Current mirror	Current mirror load for 2nd deferential amplifier.
D105,106	B-class stage mute	Prevents reverse flow.
D107~111	Over-current DET	Prevents reverse flow.
D201,202	Temperature compensator	Stabilizes current between base and emitter of 2nd deferential transistors.

COMPONENTS DESCRIPTION

Ref. No	Application / Function	Operation / Condition / Compatibility
D203,204	Current mirror	Current mirror load for 2nd deferential amplifier.
D205,206	B-class stage mute	Prevents reverse flow.
D207~211	Over-current DET	Prevents reverse flow.
D601	LED control	Controls D610's power indicator.
D602,603	Mute control	Prevents reverse flow.
D604	Mute AVR	10V
D605	Power control	Prevents reverse flow.
D606	Over-current DET	Level shift for primary power supply.
D607	Power control	Level shift
D608	Mute control	Being controlled by Q602.
D610	LED	Being controlled by Q602.
D613,614	DC protection	Operates when DC is output.
D616	POP mute	

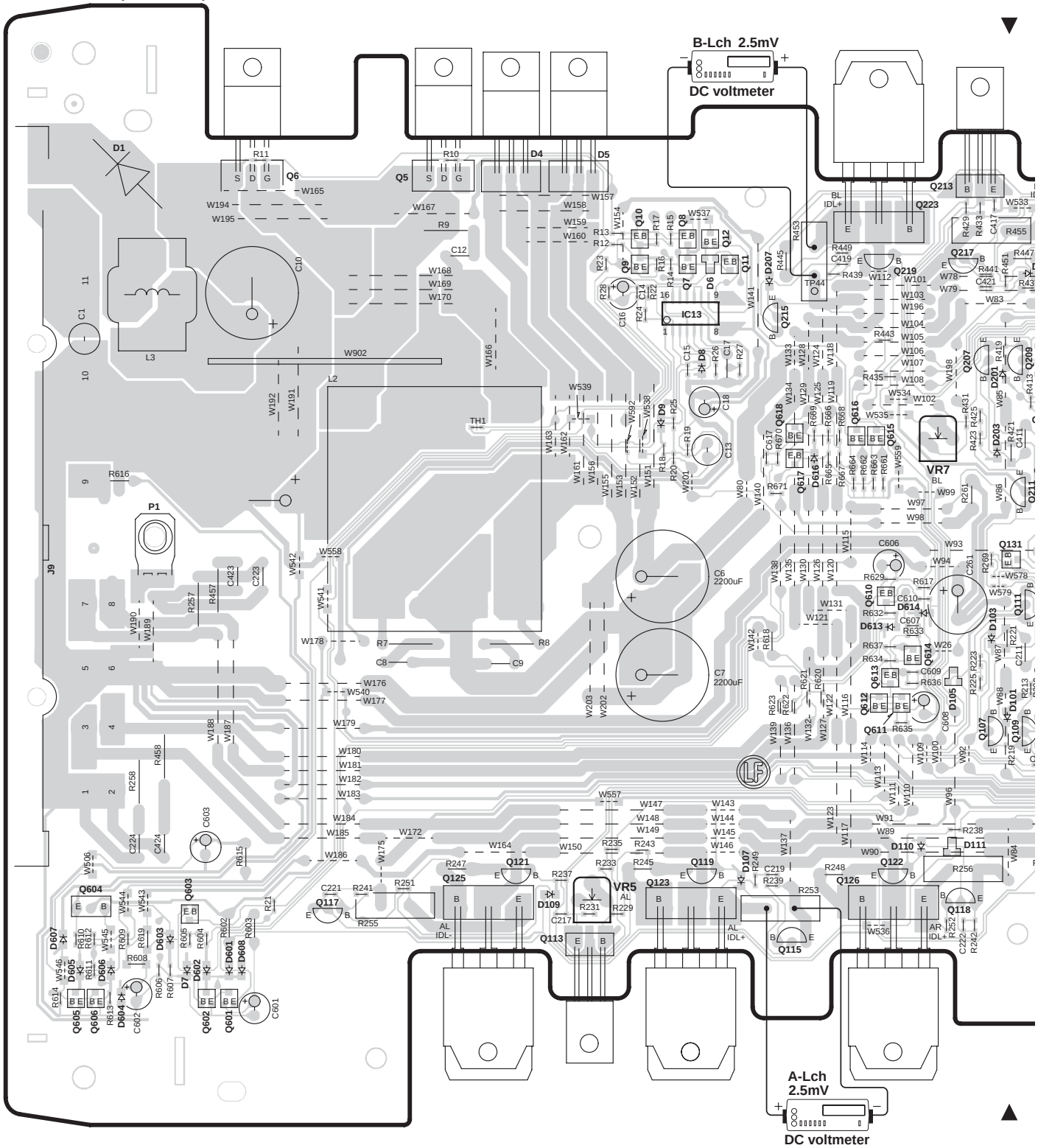
ADJUSTMENT

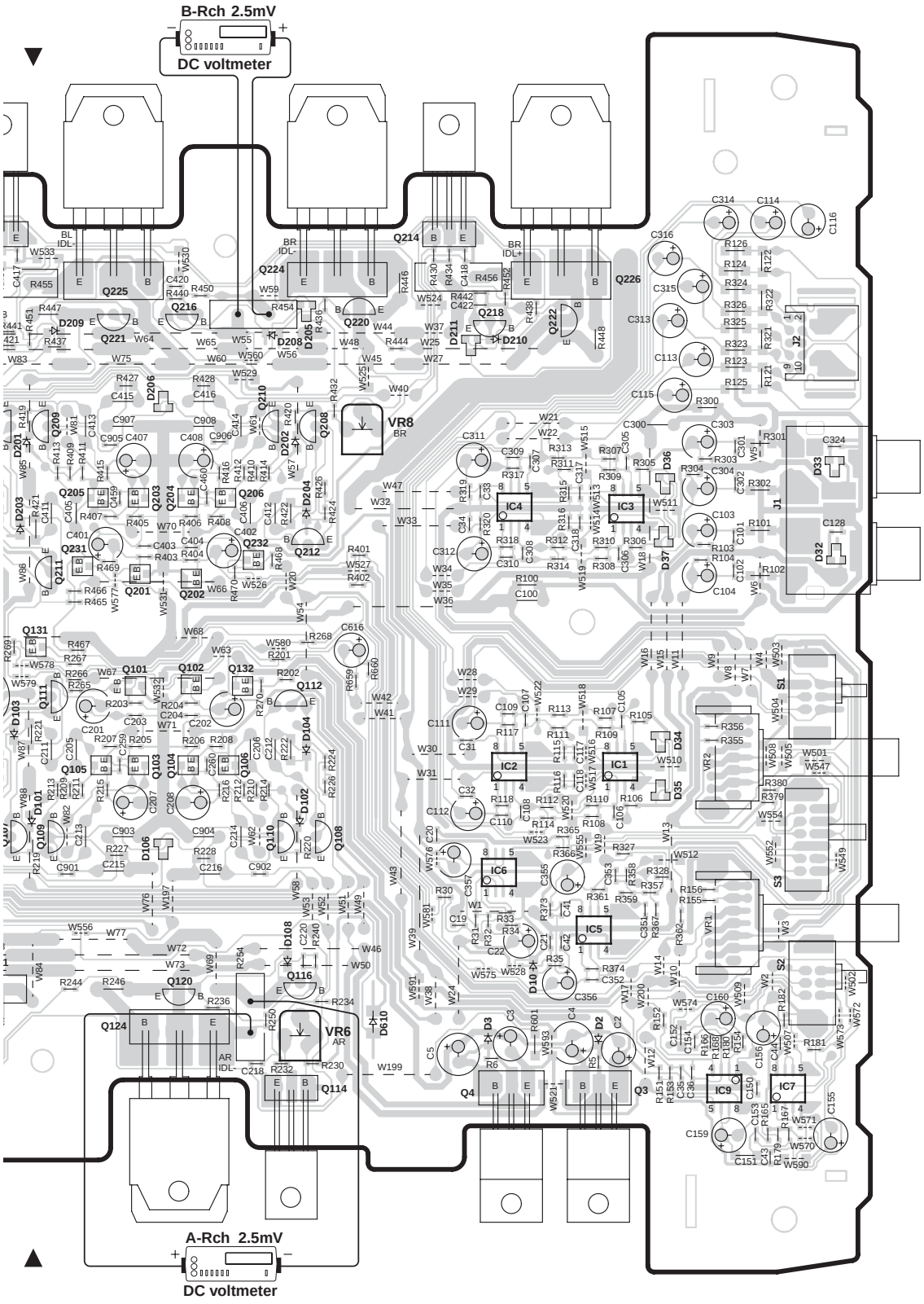
No.	Item	Alignment Point	Method	Align for	Note	Fig.
1	IDEL CURRENT	VR5 (A-Lch) VR6 (A-Rch) VR7 (B-Lch) VR8 (B-Rch)	Connect a DC voltmeter between the following emitter resistors. R253 (A-Lch) R254 (A-Rch) R453 (B-Lch) R454 (B-Rch)	2.5mV	Over 5 minutes aging is required.	PC BOARD on page 6 and 7.

KAC-6403

PC BOARD (FOIL SIDE VIEW)

AUDIO UNIT
X09-8542-70 (J76-0189-01)



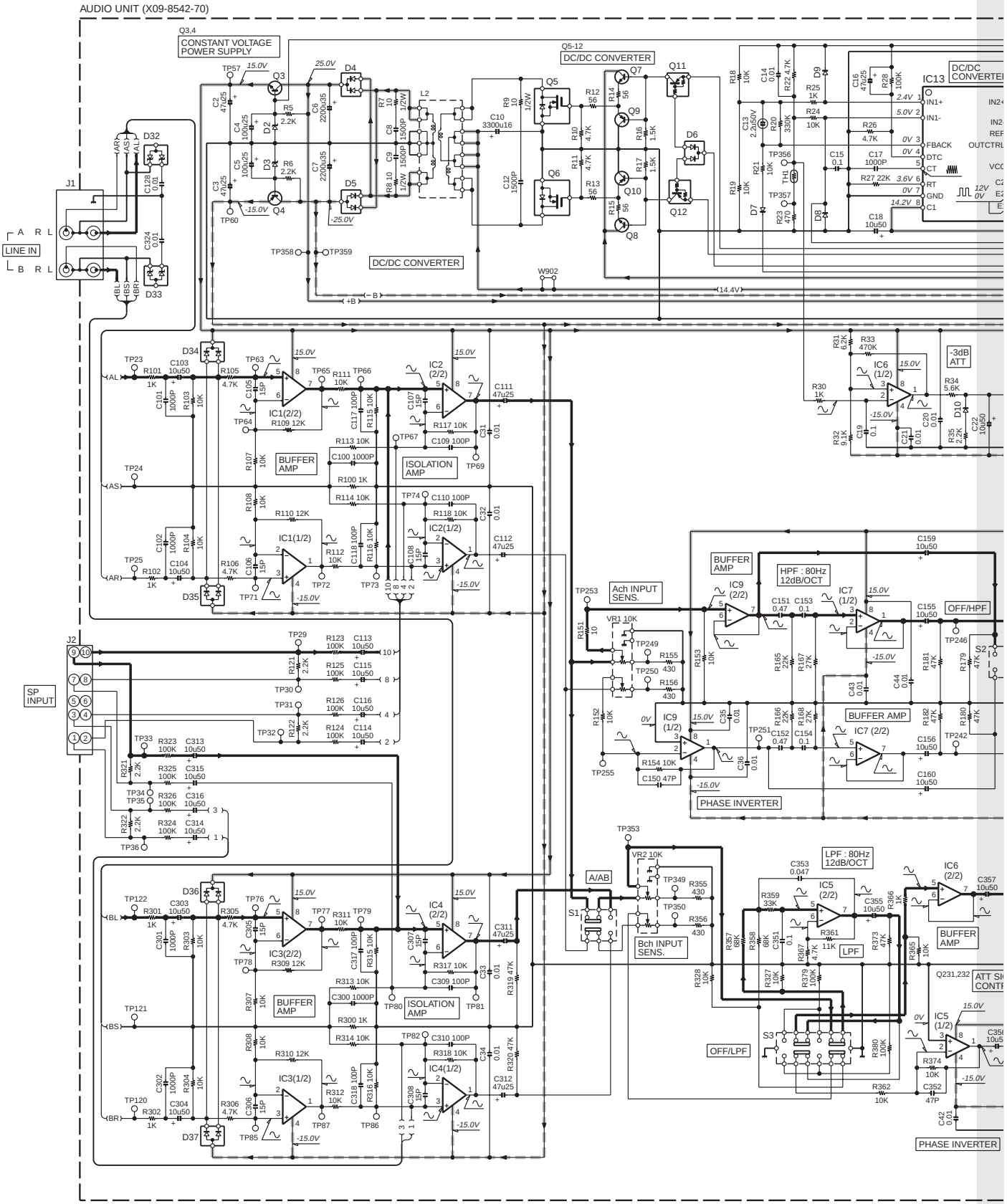


X09-8542-70

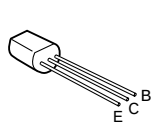
Ref. No.	Address	Ref. No.	Address
IC1	4H	Q131	4F
IC2	4H	Q132	4G
IC3	3H	Q201	4F
IC4	3H	Q202	4F
IC5	5H	Q203	3F
IC6	5H	Q204	3F
IC7	6I	Q205	3F
IC9	6I	Q206	3G
IC13	3D	Q207	3E
Q3	6H	Q208	3G
Q4	6G	Q209	3F
Q5	2C	Q210	3G
Q6	2B	Q211	4F
Q7	3D	Q212	4G
Q8	2D	Q213	2E
Q9	3D	Q214	2G
Q10	2D	Q215	3D
Q11	3D	Q216	3F
Q12	2D	Q217	3E
Q101	4F	Q218	3H
Q102	4F	Q219	3E
Q103	4F	Q220	3G
Q104	4F	Q221	3F
Q105	4F	Q222	3H
Q106	4G	Q223	2E
Q107	5E	Q224	2G
Q108	5G	Q225	2F
Q109	5F	Q226	2H
Q110	5G	Q231	4F
Q111	4F	Q232	3G
Q112	4G	Q601	6B
Q113	6C	Q602	6B
Q114	6G	Q603	5B
Q115	6D	Q604	5A
Q116	5G	Q605	6A
Q117	5B	Q606	6A
Q118	5E	Q610	4E
Q119	5D	Q611	5E
Q120	5F	Q612	5E
Q121	5C	Q613	4E
Q122	5E	Q614	4E
Q123	5D	Q615	3E
Q124	5F	Q616	3E
Q125	5C	Q617	4D
Q126	5E	Q618	3D

Refer to the schematic diagram for the values of resistors and capacitors.

KAC-6403

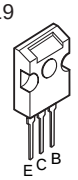


2SA817A-F
2SA992-A
2SC1627A-F
2SC1845-A

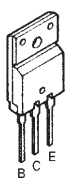


2SA1576A

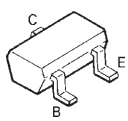
2SC3419



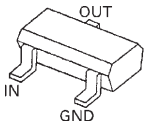
2SB1375-F
2SD2012-F

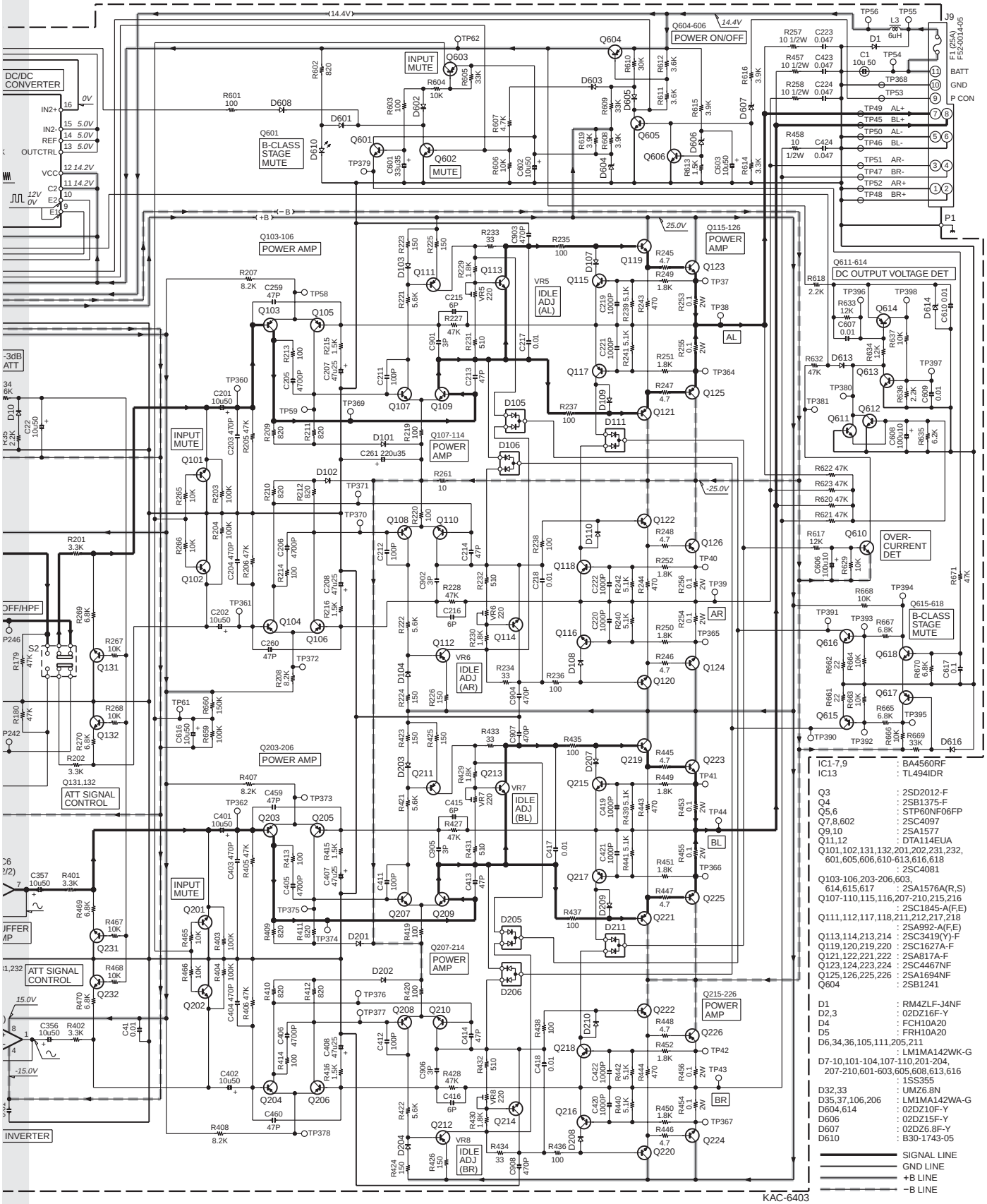


2SC4081



DTA114EUA





IC1-7,9 : BA4560RF
IC13 : TL494IDR

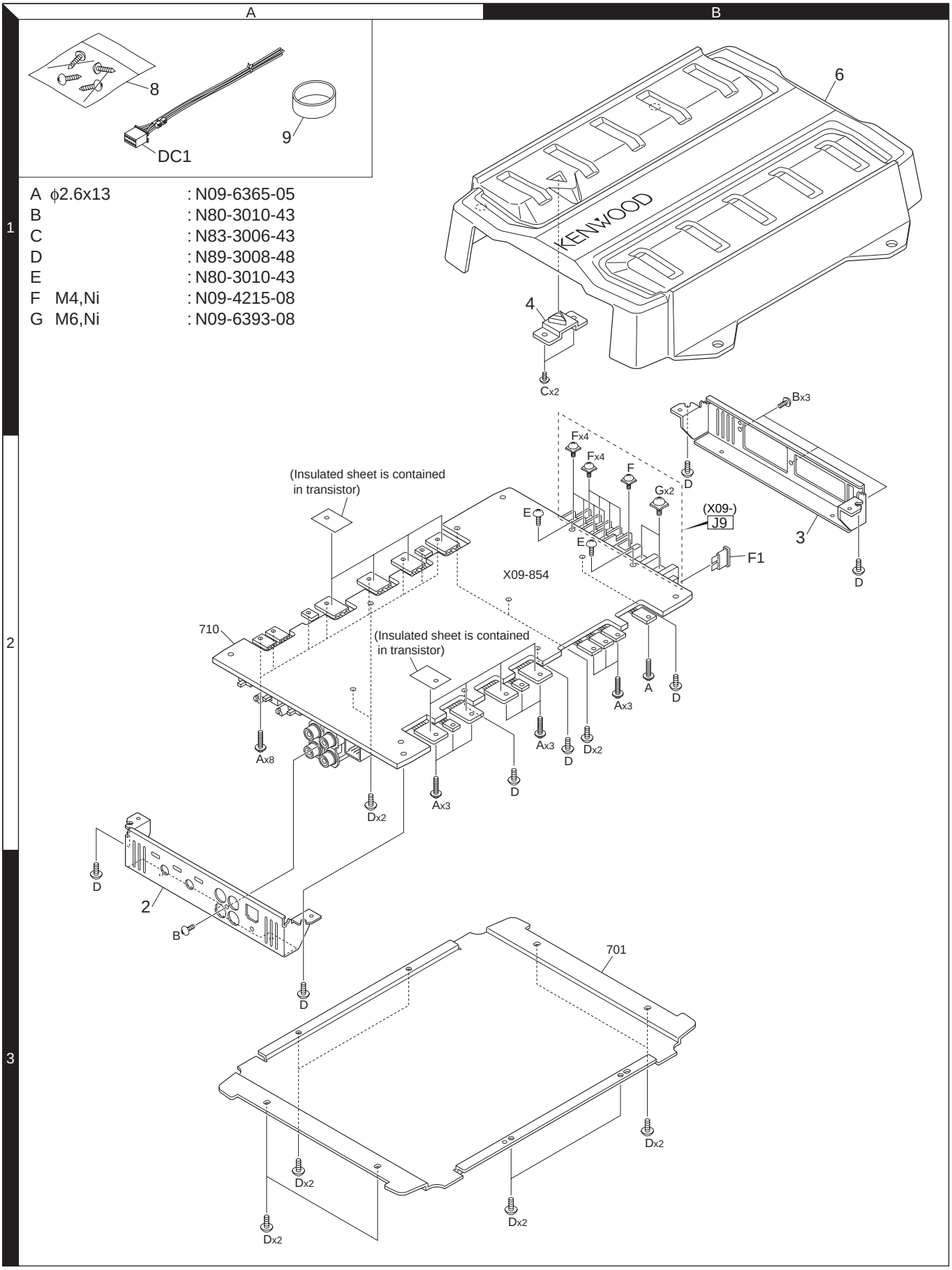
Q3 : 2SD2012-F
Q4 : 2SB1375-F
Q5,6 : STP60NF06FP
Q7,8,602 : 2SC4097
Q9,10 : 2SA1577
Q11,12 : DTA114EUA
Q101,102,131,132,201,202,231,232, 601,605,606,610-613,616,618 : 2SC4081
Q103-106,203-206,603, 614,615,617 : 2SA1576A(R,S)
Q107-110,115,116,207-210,215,216 : 2SC1845-A(F,E)
Q111,112,117,118,211,212,217,218 : 2SA992-A(F,E)
Q113,114,213,214 : 2SC3419(Y)-F
Q119,120,219,220 : 2SC1627A-F
Q121,122,221,222 : 2SA817A-F
Q123,124,223,224 : 2SC4467NF
Q125,126,225,226 : 2SA1694NF
Q604 : 2SB1241

D1 : RM4ZLF-J4NF
D2,3 : 02DZ16F-Y
D4 : FCH10A20
D5 : FRH10A20
D6,34,36,105,111,205,211 : LM1MA142WK-G
D7-10,101-104,107-110,201-204, 207-210,601-603,605,608,613,616 : 1SS355
D32,33 : UMZ6.8N
D35,37,106,206 : LM1MA142WA-G
D604,614 : 02DZ10F-Y
D606 : 02DZ15F-Y
D607 : 02DZ6.8F-Y
D610 : B30-1743-05

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

EXPLODED VIEW



Parts with the exploded numbers larger than 700 are not supplied.

KAC-6403

PARTS LIST

✻ New parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

EXPLODED VIEW is on page 5.

Ref. No.	Add	New	Parts No.	Description	Destination
KAC-6403					
2	3A	✻	A64-3834-02	PANEL	
3	2B	✻	A84-0410-02	REAR PANEL	
4	1B		B19-2324-03	LIGHTING BOARD	
-			B46-0682-00	WARRANTY CARD	
-		✻	B64-3353-00	INST. MANUAL (ENGLISH)	E
-		✻	B64-3353-00	INST. MANUAL (FRE.GER.DUT)	E
-		✻	B64-3353-00	INST. MANUAL (ITA.SPA.POR)	E
-		✻	B64-3354-00	INST. MANUAL (ENG.T-CHI)	M1
DC1	1A		E30-6144-05	CONNECTING CORD ASSY	
6	1B	✻	F01-3511-01	HEAT SINK	
⚠ F1	2B		F52-0014-05	FUSE (BLADE TYPE) (25A)	
-		✻	H10-4976-03	POLYSTYRENE FOAMED FIXTURE	
-			H25-1192-04	PROTECTION BAG (370X440)	
-			H25-1200-04	PROTECTION BAG (250X350X0.03)	
-		✻	H54-3676-03	ITEM CARTON CASE	M1
-		✻	H54-3677-03	ITEM CARTON CASE	E
8	1A		N99-1587-05	SCREW SET	
A	2A	✻	N09-6365-05	SEMS (TAPTITE SCREW) (2.6X13)	
B	1B		N80-3010-43	PAN HEAD TAPTITE SCREW	
C	1B		N83-3006-43	PAN HEAD TAPTITE SCREW	
D	3B		N89-3008-48	BINDING HEAD TAPTITE SCREW	
9	1A		W01-1606-05	ACCESSORY	
AUDIO UNIT (X09-8542-70)					
D610		✻	B30-1743-05	LED (RED LED)	
C1			CD04AU1H100M	NP ELEC 10UF 50WV	
C2,3			CD04BJ1E470M	ELECTRO 47UF 25WV	
C4,5			CD04BJ1E101M	ELECTRO 100UF 25WV	
C6,7			CD04AZ1V222M	ELECTRO 2200UF 35WV	
C8,9			CK45FB1H152K	CERAMIC 1500PF K	
C10			CD04AY1C332M	ELECTRO 3300UF 16WV	
C12			CK45FB1H152K	CERAMIC 1500PF K	
C13			CD04AU1H2R2M	NP-ELEC 2.2UF 50WV	
C14			CK73GB1H103K	CHIP C 0.010UF K	
C15			CK73GB1H104K	CHIP C 0.10UF K	
C16			CD04BJ1E470M	ELECTRO 47UF 25WV	
C17			CQ93FMG1H102J	MYLAR 1000PF J	
C18			CD04BJ1H100M	ELECTRO 10UF 50WV	
C19			CK73GB1H104K	CHIP C 0.10UF K	
C20,21			CK73GB1H103K	CHIP C 0.010UF K	
C22			CD04BJ1H100M	ELECTRO 10UF 50WV	
C31-36			CK73GB1H103K	CHIP C 0.010UF K	
C41-44			CK73GB1H103K	CHIP C 0.010UF K	
C100			CK45FB1H102K	CERAMIC 1000PF K	
C101,102			CK73GB1H102K	CHIP C 1000PF K	
C103,104			CD04BJ1H100M	ELECTRO 10UF 50WV	
C105-108			CC73GCH1H150J	CHIP C 15PF J	
C109,110			CC73GCH1H101J	CHIP C 100PF J	
C111,112			CD04BJ1E470M	ELECTRO 47UF 25WV	
C113-116			CD04BJ1H100M	ELECTRO 10UF 50WV	

Ref. No.	Add	New	Parts No.	Description	Destination
C117,118			CC73GCH1H101J	CHIP C 100PF J	
C128			CK73GB1H103K	CHIP C 0.010UF K	
C150			CC73GCH1H470J	CHIP C 47PF J	
C151,152			CK73EB1H474K	CHIP C 0.47UF K	
C153,154			CK73GB1H104K	CHIP C 0.10UF K	
C155,156			CD04BJ1H100M	ELECTRO 10UF 50WV	
C159,160			CD04BJ1H100M	ELECTRO 10UF 50WV	
C201,202			CD04BJ1H100M	ELECTRO 10UF 50WV	
C203,204			CC73GCH1H471J	CHIP C 470PF J	
C205,206			CK45FB1H472K	CERAMIC 4700PF K	
C207,208			CD04BJ1E470M	ELECTRO 47UF 25WV	
C211,212			CC45FCH1H101J	CERAMIC 100PF J	
C213,214			CC45FCH1H470J	CERAMIC 47PF J	
C215,216			CC45FCH1H060D	CERAMIC 6.0PF D	
C217,218			CK73GB1H103K	CHIP C 0.010UF K	
C219-222			CK73GB1H102K	CHIP C 1000PF K	
C223,224			CQ93FMG1H473J	MYLAR 0.047UF J	
C259,260			CC73GCH1H470J	CHIP C 47PF J	
C261			CD04BJ1V221M	ELECTRO 220UF 35WV	
C300			CK45FB1H102K	CERAMIC 1000PF K	
C301,302			CK73GB1H102K	CHIP C 1000PF K	
C303,304			CD04BJ1H100M	ELECTRO 10UF 50WV	
C305-308			CC73GCH1H150J	CHIP C 15PF J	
C309,310			CC73GCH1H101J	CHIP C 100PF J	
C311,312			CD04BJ1E470M	ELECTRO 47UF 25WV	
C313-316			CD04BJ1H100M	ELECTRO 10UF 50WV	
C317,318			CC73GCH1H101J	CHIP C 100PF J	
C324			CK73GB1H103K	CHIP C 0.010UF K	
C351			CK73GB1H104K	CHIP C 0.10UF K	
C352			CC73GCH1H470J	CHIP C 47PF J	
C353			CK73GB1H473K	CHIP C 0.047UF K	
C355-357			CD04BJ1H100M	ELECTRO 10UF 50WV	
C401,402			CD04BJ1H100M	ELECTRO 10UF 50WV	
C403,404			CC73GCH1H471J	CHIP C 470PF J	
C405,406			CK45FB1H472K	CERAMIC 4700PF K	
C407,408			CD04BJ1E470M	ELECTRO 47UF 25WV	
C411,412			CC45FCH1H101J	CERAMIC 100PF J	
C413,414			CC45FCH1H470J	CERAMIC 47PF J	
C415,416			CC45FCH1H060D	CERAMIC 6.0PF D	
C417,418			CK73GB1H103K	CHIP C 0.010UF K	
C419-422			CK73GB1H102K	CHIP C 1000PF K	
C423,424			CQ93FMG1H473J	MYLAR 0.047UF J	
C459,460			CC73GCH1H470J	CHIP C 47PF J	
C601			CD04BJ1V330M	ELECTRO 33UF 35WV	
C602,603			CD04BJ1H100M	ELECTRO 10UF 50WV	
C606			CD04BJ1A101M	ELECTRO 100UF 10WV	
C607			CK73GB1H103K	CHIP C 0.010UF K	
C608			CD04BJ1A101M	ELECTRO 100UF 10WV	
C609,610			CK73GB1H103K	CHIP C 0.010UF K	
C616			CD04BJ1H100M	ELECTRO 10UF 50WV	
C617			CK73GB1H104K	CHIP C 0.10UF K	
C901,902			CC73GCH1H030C	CHIP C 3.0PF C	
C903,904			CC45FSL1H471J	CERAMIC 470PF J	
C905,906			CC73GCH1H030C	CHIP C 3.0PF C	
C907,908			CC45FSL1H471J	CERAMIC 470PF J	

E : Europe **K** : North America **M** : Other Areas **E** : Without Europe

⚠ Indicates safety critical components.

PARTS LIST

AUDIO UNIT (X09-8542-70)

Ref. No.	Add	New	Parts No.	Description				Destination
J1		✻	E63-0939-05	PIN JACK (4P)				
J2			E58-1031-05	RECTANGULAR RECEPTACLE				
J9	2B		E70-0841-05	SCREW TERMINAL BOARD				
L2			L19-0775-05	TRANSFORMER FOR CONVERTER				
L3			L33-1920-05	CHOKE COIL				
E	2B		N80-3010-43	PAN HEAD TAPTITE SCREW				
F	2B		N09-4215-08	SCREW WASHER (M4,Ni)				
G	2B		N09-6393-08	SCREW WASHER (M6,Ni)				
R5,6			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R7-9			RD14DB2H100J	SMALL-RD	10	J	1/2W	
R10,11			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R12-15			RK73GB2A560J	CHIP R	56	J	1/10W	
R16,17			RK73GB2A152J	CHIP R	1.5K	J	1/10W	
R18,19			RK73GB2A103J	CHIP R	10K	J	1/10W	
R20			RK73GB2A334J	CHIP R	330K	J	1/10W	
R21			RK73GB2A103J	CHIP R	10K	J	1/10W	
R22			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R23			RK73GB2A471J	CHIP R	470	J	1/10W	
R24			RK73GB2A103J	CHIP R	10K	J	1/10W	
R25			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R26			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R27			RK73GB2A223J	CHIP R	22K	J	1/10W	
R28			RK73GB2A104J	CHIP R	100K	J	1/10W	
R30			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R31			RK73GB2A622J	CHIP R	6.2K	J	1/10W	
R32			RK73GB2A912J	CHIP R	9.1K	J	1/10W	
R33			RK73GB2A474J	CHIP R	470K	J	1/10W	
R34			RK73GB2A562J	CHIP R	5.6K	J	1/10W	
R35			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R100-102			RK73EB2E102J	CHIP R	1.0K	J	1/4W	
R103,104			RK73GB2A103J	CHIP R	10K	J	1/10W	
R105,106			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R107,108			RK73GB2A103J	CHIP R	10K	J	1/10W	
R109,110			RK73GB2A123J	CHIP R	12K	J	1/10W	
R111-118			RK73GH2A103D	CHIP R	10K	D	1/10W	
R121,122			RK73EB2E222J	CHIP R	2.2K	J	1/4W	
R123-126			RK73EB2E104J	CHIP R	100K	J	1/4W	
R151			RK73GB2A100J	CHIP R	10	J	1/10W	
R152-154			RK73GB2A103J	CHIP R	10K	J	1/10W	
R155,156			RK73GB2A431J	CHIP R	430	J	1/10W	
R165,166			RK73GB2A223J	CHIP R	22K	J	1/10W	
R167,168			RK73GB2A273J	CHIP R	27K	J	1/10W	
R179-182			RK73GB2A473J	CHIP R	47K	J	1/10W	
R201,202			RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R203,204			RK73GB2A104J	CHIP R	100K	J	1/10W	
R205,206			RK73GB2A473J	CHIP R	47K	J	1/10W	
R207,208			RK73GB2A822J	CHIP R	8.2K	J	1/10W	
R209-212			RK73GB2A821J	CHIP R	820	J	1/10W	
R213,214			RK73GB2A101J	CHIP R	100	J	1/10W	
R215,216			RK73GB2A152J	CHIP R	1.5K	J	1/10W	
R219,220			RK73GB2A101J	CHIP R	100	J	1/10W	
R221,222			RK73EB2E562J	CHIP R	5.6K	J	1/4W	
R223-226			RK73GB2A151J	CHIP R	150	J	1/10W	

Ref. No.	Add	New	Parts No.	Description				Destination
R227,228			RK73FB2B473J	CHIP R	47K	J	1/8W	
R229,230			RK73GB2A182J	CHIP R	1.8K	J	1/10W	
R231,232			RK73GB2A511J	CHIP R	510	J	1/10W	
R233,234			RK73GB2A330J	CHIP R	33	J	1/10W	
R235-238			RK73GB2A101J	CHIP R	100	J	1/10W	
R239-242			RK73GB2A512J	CHIP R	5.1K	J	1/10W	
R243,244			RK73GB2A471J	CHIP R	470	J	1/10W	
R245-248			RD14NB2E4R7J	RD	4.7	J	1/4W	
R249-252			RK73GB2A182J	CHIP R	1.8K	J	1/10W	
R253-256			R92-0205-05	METAL-PLATE	0.1	K	2W	
R257,258			RD14DB2H100J	SMALL-RD	10	J	1/2W	
R261			RD14NB2E100J	RD	10	J	1/4W	
R265-268			RK73GB2A103J	CHIP R	10K	J	1/10W	
R269,270			RK73GB2A682J	CHIP R	6.8K	J	1/10W	
R300-302			RK73EB2E102J	CHIP R	1.0K	J	1/4W	
R303,304			RK73GB2A103J	CHIP R	10K	J	1/10W	
R305,306			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R307,308			RK73GB2A103J	CHIP R	10K	J	1/10W	
R309,310			RK73GB2A123J	CHIP R	12K	J	1/10W	
R311-318			RK73GH2A103D	CHIP R	10K	D	1/10W	
R319,320			RK73GB2A473J	CHIP R	47K	J	1/10W	
R321,322			RK73EB2E222J	CHIP R	2.2K	J	1/4W	
R323-326			RK73EB2E104J	CHIP R	100K	J	1/4W	
R327,328			RK73GB2A103J	CHIP R	10K	J	1/10W	
R355,356			RK73GB2A431J	CHIP R	430	J	1/10W	
R357,358			RK73GB2A683J	CHIP R	68K	J	1/10W	
R359			RK73GB2A333J	CHIP R	33K	J	1/10W	
R361			RK73GB2A113J	CHIP R	11K	J	1/10W	
R362			RK73GB2A103J	CHIP R	10K	J	1/10W	
R365			RK73GB2A103J	CHIP R	10K	J	1/10W	
R366			RK73GB2A102J	CHIP R	1.0K	J	1/10W	
R367			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R373			RK73GB2A473J	CHIP R	47K	J	1/10W	
R374			RK73GB2A103J	CHIP R	10K	J	1/10W	
R379,380			RK73GB2A104J	CHIP R	100K	J	1/10W	
R401,402			RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R403,404			RK73GB2A104J	CHIP R	100K	J	1/10W	
R405,406			RK73GB2A473J	CHIP R	47K	J	1/10W	
R407,408			RK73GB2A822J	CHIP R	8.2K	J	1/10W	
R409-412			RK73GB2A821J	CHIP R	820	J	1/10W	
R413,414			RK73GB2A101J	CHIP R	100	J	1/10W	
R415,416			RK73GB2A152J	CHIP R	1.5K	J	1/10W	
R419,420			RK73GB2A101J	CHIP R	100	J	1/10W	
R421,422			RK73EB2E562J	CHIP R	5.6K	J	1/4W	
R423-426			RK73GB2A151J	CHIP R	150	J	1/10W	
R427,428			RK73FB2B473J	CHIP R	47K	J	1/8W	
R429,430			RK73GB2A182J	CHIP R	1.8K	J	1/10W	
R431,432			RK73GB2A511J	CHIP R	510	J	1/10W	
R433			RK73FB2B330J	CHIP R	33	J	1/8W	
R434			RK73GB2A330J	CHIP R	33	J	1/10W	
R435			RK73FB2B101J	CHIP R	100	J	1/8W	
R436			RK73GB2A101J	CHIP R	100	J	1/10W	
R437			RK73FB2B101J	CHIP R	100	J	1/8W	
R438			RK73GB2A101J	CHIP R	100	J	1/10W	
R439-442			RK73GB2A512J	CHIP R	5.1K	J	1/10W	

E : Europe **K** : North America **M** : Other Areas **E** : Without Europe

⚠ Indicates safety critical components.

PARTS LIST

AUDIO UNIT (X09-8542-70)

Ref. No.	Add	New	Parts No.	Description				Destination
R443,444			RK73GB2A471J	CHIP R	470	J	1/10W	
R445-448			RD14NB2E4R7J	RD	4.7	J	1/4W	
R449-452			RK73GB2A182J	CHIP R	1.8K	J	1/10W	
R453-456			R92-0205-05	METAL-PLATE	0.1	K	2W	
R457,458			RD14DB2H100J	SMALL-RD	10	J	1/2W	
R465-468			RK73GB2A103J	CHIP R	10K	J	1/10W	
R469,470			RK73GB2A682J	CHIP R	6.8K	J	1/10W	
R601			RK73EB2E101J	CHIP R	100	J	1/4W	
R602			RD14BB2C821J	RD	820	J	1/6W	
R603			RD14BB2C101J	RD	100	J	1/6W	
R604			RK73GB2A103J	CHIP R	10K	J	1/10W	
R605			RK73GB2A333J	CHIP R	33K	J	1/10W	
R606			RK73GB2A103J	CHIP R	10K	J	1/10W	
R607			RK73GB2A472J	CHIP R	4.7K	J	1/10W	
R608			RK73EB2E392J	CHIP R	3.9K	J	1/4W	
R609			RK73GB2A333J	CHIP R	33K	J	1/10W	
R610			RK73GB2A303J	CHIP R	30K	J	1/10W	
R611,612			RK73GB2A362J	CHIP R	3.6K	J	1/10W	
R613			RK73GB2A152J	CHIP R	1.5K	J	1/10W	
R614			RK73GB2A332J	CHIP R	3.3K	J	1/10W	
R615,616			RD14BB2C392J	RD	3.9K	J	1/6W	
R617			RK73GB2A123J	CHIP R	12K	J	1/10W	
R618			RD14BB2C222J	RD	2.2K	J	1/6W	
R619			RK73EB2E392J	CHIP R	3.9K	J	1/4W	
R620-623			RK73GB2A473J	CHIP R	47K	J	1/10W	
R629			RK73GB2A103J	CHIP R	10K	J	1/10W	
R632			RK73GB2A473J	CHIP R	47K	J	1/10W	
R633,634			RK73GB2A123J	CHIP R	12K	J	1/10W	
R635			RK73GB2A622J	CHIP R	6.2K	J	1/10W	
R636			RK73GB2A222J	CHIP R	2.2K	J	1/10W	
R637			RK73GB2A103J	CHIP R	10K	J	1/10W	
R659			RK73GB2A104J	CHIP R	100K	J	1/10W	
R660			RK73GB2A154J	CHIP R	150K	J	1/10W	
R661,662			RK73GB2A220J	CHIP R	22	J	1/10W	
R663,664			RK73GB2A103J	CHIP R	10K	J	1/10W	
R665			RK73GB2A682J	CHIP R	6.8K	J	1/10W	
R666			RK73GB2A103J	CHIP R	10K	J	1/10W	
R667			RK73GB2A682J	CHIP R	6.8K	J	1/10W	
R668			RK73GB2A103J	CHIP R	10K	J	1/10W	
R669			RK73GB2A333J	CHIP R	33K	J	1/10W	
R670			RK73GB2A682J	CHIP R	6.8K	J	1/10W	
R671			RK73GB2A473J	CHIP R	47K	J	1/10W	
VR1,2			R31-0232-15	VARIABLE RESISTOR	10K(A)			
VR5-8		✻	R32-0340-05	SEMI FIXED VARIABLE RESISTOR				
W501			R92-2053-05	CHIP R	0 OHM	J	1/8W	
W502			R92-1252-05	CHIP R	0 OHM	J	1/16W	
W503-506			R92-2053-05	CHIP R	0 OHM	J	1/8W	
W507			R92-1252-05	CHIP R	0 OHM	J	1/16W	
W508-512			R92-2053-05	CHIP R	0 OHM	J	1/8W	
W513,514			R92-1252-05	CHIP R	0 OHM	J	1/16W	
W515			R92-2053-05	CHIP R	0 OHM	J	1/8W	
W516,517			R92-1252-05	CHIP R	0 OHM	J	1/16W	
W518-521			R92-2053-05	CHIP R	0 OHM	J	1/8W	
W522,523			R92-1252-05	CHIP R	0 OHM	J	1/16W	
W524,525			R92-2053-05	CHIP R	0 OHM	J	1/8W	

Ref. No.	Add	New	Parts No.	Description				Destination
W526			R92-1252-05	CHIP R	0 OHM	J	1/16W	
W527			R92-2053-05	CHIP R	0 OHM	J	1/8W	
W528			R92-1252-05	CHIP R	0 OHM	J	1/16W	
W529-546			R92-2053-05	CHIP R	0 OHM	J	1/8W	
W547			R92-1252-05	CHIP R	0 OHM	J	1/16W	
W549			R92-1252-05	CHIP R	0 OHM	J	1/16W	
W552			R92-2053-05	CHIP R	0 OHM	J	1/8W	
W554,555			R92-2053-05	CHIP R	0 OHM	J	1/8W	
W556			R92-1252-05	CHIP R	0 OHM	J	1/16W	
W557-559			R92-2053-05	CHIP R	0 OHM	J	1/8W	
W560			R92-1252-05	CHIP R	0 OHM	J	1/16W	
W570-581			R92-1252-05	CHIP R	0 OHM	J	1/16W	
W590,591			R92-2053-05	CHIP R	0 OHM	J	1/8W	
W592			R92-1252-05	CHIP R	0 OHM	J	1/16W	
W593			R92-2053-05	CHIP R	0 OHM	J	1/8W	
S1,2			S62-0842-05	SLIDE SWITCH				
S3		✻	S62-0878-05	SLIDE SWITCH				
D1			RM4ZLF-J4NF	DIODE				
D2,3			02DZ16F-Y	ZENER DIODE				
D4			FCH10A20	DIODE				
D5			FRH10A20	DIODE				
D6			LM1MA142WK-G	DIODE				
D7-10			1SS355	DIODE				
D32,33			UMZ6.8N	ZENER DIODE				
D34			LM1MA142WK-G	DIODE				
D35			LM1MA142WA-G	DIODE				
D36			LM1MA142WK-G	DIODE				
D37			LM1MA142WA-G	DIODE				
D101-104			1SS355	DIODE				
D105			LM1MA142WK-G	DIODE				
D106			LM1MA142WA-G	DIODE				
D107-110			1SS355	DIODE				
D111			LM1MA142WK-G	DIODE				
D201-204			1SS355	DIODE				
D205			LM1MA142WK-G	DIODE				
D206			LM1MA142WA-G	DIODE				
D207-210			1SS355	DIODE				
D211			LM1MA142WK-G	DIODE				
D601-603			1SS355	DIODE				
D604			02DZ10F-Y	ZENER DIODE				
D605			1SS355	DIODE				
D606			02DZ15F-Y	ZENER DIODE				
D607			02DZ6.8F-Y	ZENER DIODE				
D608			1SS355	DIODE				
D613			1SS355	DIODE				
D614			02DZ10F-Y	ZENER DIODE				
D616			1SS355	DIODE				
IC1-7			BA4560RF	ANALOGUE IC				
IC9			BA4560RF	ANALOGUE IC				
IC13			TL494IDR	ANALOGUE IC				
Q3			2SD2012-F	TRANSISTOR				
Q4			2SB1375-F	TRANSISTOR				
Q5,6		✻	STP60NF06FP	FET				
Q7,8			2SC4097	TRANSISTOR				

E : Europe **K** : North America **M** : Other Areas **E** : Without Europe

⚠ Indicates safety critical components.

PARTS LIST

AUDIO UNIT (X09-8542-70)

Ref. No.	Add	New	Parts No.	Description	Destination
Q9,10			2SA1577	TRANSISTOR	
Q11,12			DTA114EUA	DIGITAL TRANSISTOR	
Q101,102			2SC4081	TRANSISTOR	
Q103-106			2SA1576A(R,S)	TRANSISTOR	
Q107-110			2SC1845-A(F,E)	TRANSISTOR	
Q111,112			2SA992-A(F,E)	TRANSISTOR	
Q113,114			2SC3419(Y)-F	TRANSISTOR	
Q115,116			2SC1845-A(F,E)	TRANSISTOR	
Q117,118			2SA992-A(F,E)	TRANSISTOR	
Q119,120			2SC1627A-F	TRANSISTOR	
Q121,122			2SA817A-F	TRANSISTOR	
Q123,124			2SC4467NF	TRANSISTOR	
Q125,126			2SA1694NF	TRANSISTOR	
Q131,132			2SC4081	TRANSISTOR	
Q201,202			2SC4081	TRANSISTOR	
Q203-206			2SA1576A(R,S)	TRANSISTOR	
Q207-210			2SC1845-A(F,E)	TRANSISTOR	
Q211,212			2SA992-A(F,E)	TRANSISTOR	
Q213,214			2SC3419(Y)-F	TRANSISTOR	
Q215,216			2SC1845-A(F,E)	TRANSISTOR	
Q217,218			2SA992-A(F,E)	TRANSISTOR	
Q219,220			2SC1627A-F	TRANSISTOR	
Q221,222			2SA817A-F	TRANSISTOR	
Q223,224			2SC4467NF	TRANSISTOR	
Q225,226			2SA1694NF	TRANSISTOR	
Q231,232			2SC4081	TRANSISTOR	
Q601			2SC4081	TRANSISTOR	
Q602			2SC4097	TRANSISTOR	
Q603			2SA1576A(R,S)	TRANSISTOR	
Q604			2SB1241	TRANSISTOR	
Q605,606			2SC4081	TRANSISTOR	
Q610-613			2SC4081	TRANSISTOR	
Q614,615			2SA1576A(R,S)	TRANSISTOR	
Q616			2SC4081	TRANSISTOR	
Q617			2SA1576A(R,S)	TRANSISTOR	
Q618			2SC4081	TRANSISTOR	
TH1		✻	NCP18WB473J0S	THERMISTOR	

Ref. No.	Add	New	Parts No.	Description	Destination

E : Europe **K** : North America **M** : Other Areas **E** : Without Europe

⚠ Indicates safety critical components.

KAC-6403

SPECIFICATIONS

Audio Section

Max Power Output 500W
Rated Power Output
  Normal (4Ω) (DIN: 45324, +B=14.4V) ..... 40W x 4
  (2Ω) (1kHz, 1% THD) ..... 60W x 2
  Bridged (4Ω) (1kHz, 1% THD) ..... 120W x 2
Frequency Response (+0, -3dB) ..... 10Hz~50kHz
Sensitivity (rated output)
  MAX. 0.2V
  MIN. 5.0V
Signal to Noise Ratio 100dB
Input Impedance 10kΩ
Low Pass Filter Frequency (12dB/oct.) 80Hz
High Pass Filter Frequency (12dB/oct.) 80Hz

General

Operating Voltage ..... 14.4V (11~16V allowable)
Current Consumption 25A
Dimensions (W x H x D) ..... 330 x 60 x 230 (mm)
Weight ..... 2.7kg (6.0 lbs)

KENWOOD follows a policy of continuous advancements in development.
For this reason specifications may be changed without notice.

Installation